

AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, FINANCE,
ENGINEERING, BANKING, MINING, MANUFACTURES.

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American Railroad Journal.

New York, Saturday, June 14, 1862.

The Late Freshet.

During the past week one of the most destructive freshets that ever visited this country ravaged large portions of Virginia, Maryland, Pennsylvania, New Jersey and this State. Its effects, indeed, are known to have been experienced all over the Atlantic slope, from Maine to the Carolinas. Pennsylvania, however, appears have been the chief sufferer. On the Delaware and Lehigh rivers the water is known to have risen as high as in the great freshet of 1841, which proved so exceedingly disastrous to the coal and navigation interests of that State. A period of twelve years elapsed before the Lehigh Navigation Company were able to resume the payment of dividends. It does not seem that this river has been so completely swept of its great improvements as on that occasion, though several dams, locks and bridges have been carried away. The causes why the State should suffer so severely are simple. In the first place, she has much more valuable property exposed to destruction than any other State lying to the Southward, and most of those lying to the Northward of herself. Her mountains are not only penetrated by numerous canals and railroads, but

each of these has attracted to itself an extensive manufacturing industry, all of which suffers in the general wreck. Thus, a large number of the most important iron-works in the country are situated in the valley of the Lehigh, between Easton and Mauch Chunk. By means of the improvements made there, the soft ores obtained in the Pennsylvania mountains, are mixed with the harder ores from the Northern part of New Jersey, the product being manufactured into various uses or shipped directly to Philadelphia and this city. With the sudden rise of the waters some of those works were invaded before the furnaces had time to blow out; others were so inundated that the buildings sustained serious damage. In every case, there is more or less interruption in getting supplies and shipping products to the large cities. The Morris Canal will be a heavy loser in its business this season.

In the next place, through an agency lately alluded to in these columns, the Eastern parts of Pennsylvania and New York have become more exposed to ravages from heavy rains than States whose surface is largely covered by forests. The water rushes forthwith to the leading arteries and the ocean, instead of settling in the swamps and woodlands. This is one of the necessary evil consequences of improvements, or rather of improvements only half carried through. In a single day the Keystone State was made not less than five and possibly ten millions poorer than she had been the day before. Allowing for the States lying on both sides of her, we doubt not the total losses will foot up to the larger of the figures mentioned. Indeed, the Lehigh Valley alone is estimated to have been devastated to the extent of five millions. A similar sum judiciously expended would, we believe, have prevented nearly all the mischief; and when we come as a community to adopt the principle of prevention rather than cure, that sum will be forthcoming.

One of the preventive agencies has already been alluded to in these columns—the construction of numerous reservoirs in the mountain ravines, by which the surplus waters might be retained there, to be dispensed on future occasions to the lowlands. Considering what has already been accomplished, in our own country, for the purpose simply of supplying our canals, it will be readily seen

how much more could be done, were the agricultural, manufacturing, mining and carrying interests to combine their strength on behalf of the proposed undertakings. The soil would be vastly benefitted by the retention of its best ingredients, now annually washed away, and by the process of irrigation, which would alone almost double its productive capacity. If the farming interest was sufficiently intelligent and enterprising, it would not hesitate in carrying into effect the improvements we have pointed out. But the truth is, every interest is directly concerned in the same general result, as the events of last week abundantly bear witness.

In connection with this, there is another agency which is equally simple and much less expensive, that ought to be employed without delay. The science of Meteorology has now arrived at such a pitch that every general and violent storm, such as that of Wednesday week, can be predicted with almost absolute certainty twenty-four or thirty-six hours in advance. By means of the telegraph this information might be communicated to all parts of the country in a few minutes, so that signals could be displayed along the coast, while in the interior works could be put in a state of readiness to receive the expected visitor. Every reservoir could thus be run dry; every canal be lowered; even the boatmen could be forewarned. A large number of valuable lives perished during the late freshet, every one of which might have been saved to their own families and the community at large.

We are here making use of no reckless assertions. The experiment of "forecasting" the weather has been tried in England. It is conducted on strict scientific principles by a Department under the supervision of Admiral Fitzroy. To defray the necessary expenses in connection with it, the British Government makes a small appropriation annually. A leading London journal remarks that this invention has already been the means of saving hundreds of lives annually. It is admitted on all hands that though Fitzroy has made frequent mistakes as to local gales, yet that no great general storm has visited the country during the past year without being heralded for several hours in advance by the display of signals along the coast, warning seamen to keep off shore or not to venture out for the time being. In this

Philadelphia and Reading Railroad.

The total length of track in the Reading Railroad and its branches (seven in number) is 311.96 miles, or including the sidings, 415.97 miles. It would seem to be inevitable that most of the short lines penetrating the coal deposits should be leased by or consolidated with the great roads resting in Philadelphia, New York, Baltimore or Pittsburg. The Schuylkill Valley and Mill Creek railroads have been added by lease to the Reading during the past year, and the Allentown and Schuylkill and Susquehanna lines by the purchase of stock.

The report shows that with every improvement in the track and machinery a steady reduction in the cost of transportation is taking place. This, however, is due in part to the larger bulk carried. Thus, in 1852, the expense of carrying general merchandise over the whole road was \$1.09.5 per ton; in 1862, it was \$0.70.2, while the profit amounted to \$0.55.2. The expense of carrying coal was \$0.41; profit \$0.77.2. For passengers the former was \$1.37.5, and the latter \$1.06.75. It will be seen that the gain in general merchandise was least; while that on a passenger carried over the whole road was the greatest, being nearly equal to two tons of ordinary freight, or one and a-half tons of coal.

It is principally as a coal road that the Reading derives its great importance. The statistics in connection with this service may be set down as based on the most favorable circumstances that can be imagined; and it will be well to remember this fact, when instituting comparisons between the Reading and other roads. Thus the former enjoys a continuous level or descending grade from Pottsville to tide-water, enabling heavy loads to be conveyed at a minimum of cost. Its track is in excellent condition. Its stock, depots, sidings and other conveniences are ample. Anthracite coal is used, which can be purchased at first cost. All these advantages have been the creation of twenty years' outlay. For the round trip of 190 miles the report estimates the expense of hauling an average load of 435.6 tons of 2,240 lbs. each at \$90 71, or 20.82 cents per ton. But this is exclusive of repairs, renewals or interest charges which add about as much more.

The number of locomotives owned is about one to every 2.8 miles of track of roads and sidings—probably the largest equipment on any leading road in the country. The majority of these were built at the company's shops, where eleven were also re-built during the past year. The number of coal cars (5,608) gives an average of nearly fourteen to every mile of track. The engine which has run the greatest number of miles is the Hudson, built by Mr. Baldwin in 1844; she has made 276,392 miles, altogether, including 12,486 miles last year. The greatest work done by any of the company's locomotives was rendered by the Reading, built in 1842; her total mileage is given at 249,987 miles, including 13,065 for last year. The Messrs. Norris furnished one the same year which has made 256,900 miles, including 4,570 miles in 1861. Messrs. Danforth, Cook & Co., of Paterson, supplied, in 1857, the Petrel, which has in that period (four and a-half years) travelled 127,430 miles, of which 25,330 miles were run the past year. Three engines built by Braithwaith & Co., of London, in 1838, have not averaged 200,000 miles each.

Finances of Ohio.

The semi-annual report of the sinking fund commissioners of Ohio places the total reducible State debt at \$14,699,426—an increase of \$404,000 since the last report. The sinking fund receipts for the last six months are \$1,062,507; the disbursements \$833,339.

Railroad and Highway Crossing.

THE LAW OF MASSACHUSETTS AS TO THE CROSSING OF COMMON ROADS AT THE SAME LEVEL WITH RAILROADS. A HIGHWAY CONSTRUCTED AFTER THE RAILROAD IS BUILT SHOULD NOT CROSS AT THE SAME LEVEL, UNLESS ABSOLUTELY NECESSARY FOR PUBLIC CONVENIENCE.

In 1856 the Mayor, Alderman and Common Council of the City of Lawrence, laid out a highway in that city, across the railroad track of the Boston and Maine Railroad Company, which was to be so constructed as to cross the company's track at the same level; and as such crossings usually do, much inconvenience to the company would naturally flow therefrom. In order to avoid this, the company sought the aid of the Supreme Court of Massachusetts, and prayed for a writ of *certiorari*, asking that the record of the proceedings of the authorities of the City of Lawrence in respect to the laying out of the highway in question might be quashed, on the ground that the city had no right to so construct their road as to put them to inconvenience or expense, that the laws of the State required that the road should be built either above or below the level of their track.

The city in their answer or defense set forth among other things, that an agreement had been made between the company and the former owners of the land where the crossing was, by which the former owners stipulated for a right of way to be used by them and their assigns, at the place where the highway was afterwards laid out.

After argument the court decided to grant the writ in favor of the company; and held, that under the Revised Statutes of Massachusetts, c. 39, § 69, town or city authorities had no power to lay out a highway across a railroad, on a level therewith; and a railroad company is not estopped from objecting to the exercise of such power by an agreement made by it with former owners of the land, which contained a stipulation for a right of way, to be used by such owners and their assigns, at the place where the highway was afterwards laid out. The following opinion was rendered by the court at the decision of the case.

CHAPMAN, J.—Such crossings necessarily create embarrassment, and there has been considerable legislation and some litigation in respect to them. In the construction of a railroad, the grades and levels must generally be established without much regard to the levels of the turnpikes and other ways which it may cross; and the levels of the turnpikes and ways must be made to conform to the necessities of the railroad. There are four different methods of arranging the crossings. 1. The railroad may pass over the other road at a higher level by means of a bridge. 2. It may pass under the other road, which will then pass over the railroad by means of a bridge. 3. It may cross it at the same level at which the other road was originally made. 4. It may be constructed so that the other road must be either raised or lowered a few feet, or even less to cross it at the same level. In the last two cases there is a sense in which the railroad may be said to cross "over"

the other roads. This construction of the word over is adopted in Newburyport Turnpike Cross vs. The Eastern Railroad Company.

There are two classes of cases in which crossings must be provided for. 1. Where a railroad is to be constructed across an existing turnpike or other way. 2. Where a turnpike or other way is to be constructed across an existing railroad. The first class of cases was provided for by Revised Statutes c. 39, §§ 66 and 67; the second class was provided for by § 69.

Sec. 67 received a construction in the case above cited, in respect to the words "over" and "under." It was held that they were not precisely opposites; but that though the word "under" as applied to the construction of a railroad, would require it to be constructed at a lower level than the turnpike or other way, yet construing the word "over" by applying it according to the subject matter, a railroad might be said to pass "over" the turnpike or other way when both were at the same level. It will readily be seen that without such a construction of the word in that section, an important class of cases would be entirely unprovided for, namely, the fourth class above mentioned, where a railroad is so constructed that, by a little raising or lowering of the other road, they may cross each other—at the same level. For there are many cases where it would be a much greater injury to the turnpike or other way to raise or lower it, to such an extent that it shall cross the railroad at a higher or a lower level, than to change it so that it shall cross at the same level. It was in view of this subject matter that this construction was given to the word "over" in that section.

But after a railroad is completed, the establishment of a new turnpike or other way across it is a different matter, and the language of the statute in respect to it is different. Sec. 69, provides that "if after the laying out and making of any railroad already granted, or which hereafter may be granted, any turnpike or other way shall be so laid as to cross said railroad, the said turnpike road or way may be so made as to pass under or over said railroad, and said turnpike or way shall in all cases be so made as not to obstruct or injure such railroad." The word "over" as used in this section has not received a judicial construction. If the subject matter required us to do so, we might give it the same construction that has been given to the same word in § 67. But this is not its most natural construction, and there is nothing in the subject matter which requires us to vary from the most natural construction. Where a turnpike or other way is to be made across an existing railroad, and to be so made as to pass over or under said railroad, it is comparatively easy to construct it in such a manner that it shall cross at a different level; and by constructing it thus it will "injure" the railroad much less, than by crossing it at the same level. And it is to be remarked that the word "injure" which is found in § 69 is not used in § 66. We are therefore of the opinion that it was intended by § 69 to prohibit the laying out of turnpikes, highways, and townways across existing railroads at the same level. This construction is confirmed by a reference to subsequent legislation on the subject. St. 1842, c. 22, provides for the cases in which a railroad has been so made as to cross a turnpike,

highway, or townway at the same level. If the town or city authorities are of opinion that the way should be raised or lowered, "so as to pass over or under said railroad," they may request the company to make the change; and if the company does not comply with the request, they may apply to the county Commissioners, who are invested with full and final jurisdiction of the matter. In this statute three terms, "over," "under," and "on a level therewith" are used; and by the term "over" a higher level is obviously intended.

In 1846 another act was passed upon the subject of crossings. It required every railroad which should thereafter be made across any turnpike, highway or townway, to be so constructed, "as to cross over or under the turnpike, highway or townway." In this section the term "over" obviously intends a higher level. Sec. 2 authorized the county Commissioners, upon the application of parties interested, after a hearing, to authorize and require the railroad to be constructed at such crossing "upon the level with the turnpike, highway, or townway, in such a manner as they may direct." None of this legislation touched the subject of laying out turnpikes, highways or townways across existing railways at the same level, as it would have been likely to do if it had been understood that any power existed to lay them in such manner.

The Statute of 1849, extended the authority of the county Commissioners. Section 1 made a further provision as to crossings in Boston. Section 2 extended the provisions of former laws to traveled places not laid out as highways or townways. Section 4 is as follows: "The original jurisdiction of all questions touching obstructions to turnpikes, highways and towns, caused by the construction or operation of railroads, shall be vested in the county Commissioners of the respective counties where such obstructions shall occur." This general provisions covers the whole subject, provided the construction we have given to the Revised Statutes c 39 § 69 is correct. If the Legislature had not so understood the section referred to, they would have been likely to include in this statute a provision regulating the exercise of the power of town and city authorities to lay out town ways across existing railroads.

By St. 1857, c 287, authority is given to construct turnpike roads and other ways across existing railroads on the same level. But the company is first entitled to a hearing before the county Commissioners, and such crossing is not to be permitted unless it shall be decided by the Commissioners that the public necessity so requires it. The provisions of this statute are continued in force by Gen. Sts. c 63 § 57 et seq. It is to be remarked that the Legislature regard the objections to laying out such new ways as being so forcible that the Commissioners are not authorized to sanction them for mere reasons of public convenience. The language is, "but not permitting it to be at a level, unless public necessity so requires." Under this provision, the way in question may be laid out so as to cross the railroad at the same level, if a public necessity exists for so constructing it.

But upon the view we have taken of the Revised Statutes the proceedings of the respondents are void for want of authority. Being thus void, none of the facts alleged in the answer can give them

validity. The agreements of the petitioners, which are relied on to show that they ought not to object to the laying of the road, are immaterial. They provide for the establishment of a private way; and the petitioners might be willing that such a private way should exist across their track near to their depot, when they could have strong reasons for opposing the establishment of a public way at that place. *Certiorari granted.*

The New Plans of Internal Improvement by the Federal Government.

The lessons which the present war has taught may result in an improvement of our great water lines, which will work a change in the commercial affairs of the continent, quite as marked as those which must necessarily take place in its political condition.

By the treaty with Great Britain, following the last war with that power, it was stipulated that neither party should maintain upon the Great Lakes, in time of peace, ships of war carrying more than one gun each. The object was to remove mutual causes of distrust, as well as to avoid the cost of great armaments upon these waters. But since this treaty was made, the Canadas, as a part of the British Empire, have constructed canals past the rapids on the St. Lawrence, and the Falls of Niagara, by means of which, vessels of war may ascend into all the Lakes but Superior, and capture or destroy every town upon them within the territory of the United States, as they are all entirely defenceless against attacks by water, especially by the new agencies of destruction which have been brought into use. To meet this inequality of position in the only mode possible, it is now proposed so to enlarge the Erie Canal on the East, and the Illinois Canal on the West, and to improve the navigation of the Illinois River, that an overwhelming force of gun-boats may, on any emergency, be placed on the lakes both from the Hudson and the Mississippi. Such facilities for transportation would relieve all apprehensions of a successful inroad upon what is now an entirely exposed frontier, and would allow the withdrawal of the means of defence for operations in other quarters, as soon as the danger threatened was averted or removed. The plan suggested has received the careful consideration of the Committee on Military affairs on the part of the House of Representatives at Washington, which has unanimously agreed upon a report in its favor, with every prospect that it will meet with a favorable response from Congress.

On the East the plan proposes an enlargement of the Erie Canal to a depth of water of 12 feet, and with locks that will pass ships of war fitted for operations upon the Lakes. The cost of such an improvement is estimated all the way from \$3,500,000 to \$7,000,000. There are no engineering difficulties to be encountered, the new work required being of the simplest character possible. There is an abundance of water upon the route of the canal for the enlarged prism. On the West a similar enlargement is proposed for the Illinois Canal, though only to the depth of seven feet, which would equal the depth found on an average, in the Mississippi above Cairo. The work here might involve a cut, as proposed when the present canal was constructed, whereby a portion of the water of Lake Michigan could be turned down the Illinois and Mississippi. An excavation to a depth of only eight feet would accomplish this object, and would probably, be the most desirable mode of effecting the improvement, although the summit between Lake Michigan and the Illinois River might be fed from other sources.

Although the improvements proposed are to be undertaken as *military* works, it is plain to see that they would prove vastly more useful and valuable in commercial, than in military results or consequences. The condition of all commerce in this country is economy in the transportation of the bulky produce of the interior to markets, which are either within a narrow belt upon tide water, or in foreign countries. Upon the best constructed earth roads, the most valuable produce grown can be conveyed only a comparatively short distance before the value of such produce is eaten up in cost of transportation. Hence improved highways are a necessary condition to any considerable commerce either foreign or domestic. Indian corn would not bear cost of transportation in wagons over earth roads from the nearest points on the lakes to tide water. Such cost would very nearly equal the value of wheat; yet both products are grown 2,500 miles inland, and are laid down with profits upon the docks, not only of this city, but nearly every city of Europe, by means of our magnificent system of public works. The configuration of the country is most favorable to such works, while the gentle slopes of our great plains render navigable nearly all the rivers by which they are watered, and which in turn serve as most valuable feeders to our artificial lines.

The Erie Canal has reduced the cost of transporting a ton of merchandise from Buffalo to New York City, from \$100 by the ordinary highways, to \$2.50. The process of this marvelous reduction was a gradual one, the cost at the present time being only one-quarter what it was when the canal was first opened. The reduction has only followed the increased capacity of this work. There were transported over it the past year 2,300,000 tons of breadstuffs equivalent to 75,000,000 bushels, having a value of \$70,000,000. Produce can be transported from the Western shores of Lakes Erie and Superior to New York, for \$60 per ton. This work now allows the production of breadstuffs, at a profit, upon every portion of territory in the West yet occupied by our people, and is one of the most important agencies by which the financial strength of the country has been sustained in the present crisis.

But complete as our public works are, we still want something better. The average number of tons, each trip, transported by the boats navigating the Erie Canal the past season was 163. If their capacity could be increased to 500 or 1,000 tons, the saving in cost of transportation would be enormous—a saving which would inure equally to the benefit of the producer and consumer. The commercial value of such an improvement to every interest in the country would be incalculable. All would alike share in it. It would draw to the Northern ports the whole produce of the interior, and nearly render superfluous the existence or maintenance of Southern harbors. It would carry the habitable line of our territory hundreds of miles further West—that is, it would give a commercial value to products, hundreds of miles west of the extreme limits from which they will now bear transportation. We of course include in the plan of improvement, the enlargement of the Illinois Canal, so that every vessel now navigating the Mississippi, or any of its branches, might discharge their cargoes upon the Western shores of Lake Erie.

The effect of the improvement proposed would be to increase many times the value of the advantages we now enjoy, and which has enabled the country to display a strength which has excited the surprise, not to say the admiration of the world. But the works we have, in their present condition, have given us

£75 to £100; the smallest amount, some £72,000 only, by persons possessed of from £1 to £5.

Lake and River Defences.

While the New York and Illinois delegation in Congress are urging upon Government the enlargement of the Erie, Oswego and Illinois canals, to a capacity sufficient for the passage of iron-clad war vessels, for the protection of the commerce of the lakes and rivers, and the security of the country bordering upon them, it is to be hoped that the Michigan delegation will urge, as part of the system to be adopted by Government, the fortification of Mackinaw and the construction of a military road from some principal thoroughfare in the Lower Peninsula of this State, to Mackinaw and through the Upper Peninsula to the water at the head of Lake Superior. There is no section more exposed than that, none more inviting to attack by a foreign foe, and, for what is asked, no greater interest is as much imperilled. Every consideration of State and National policy favors the creation of easy land communication between the two Peninsulas of this State, while the importance of fortifying the Straits of Mackinaw is second to no other military necessity on the Lakes.—*Detroit Tribune*.

Illinois Central Railroad.

The Illinois Central Railroad Company has paid into the treasury of that State, in the last six years, \$779,631. The public revenue now derived from this road reaches nearly \$180,000 per annum.

The Illinois Central Railroad Company, in anticipation of an increased demand for its farming lands on the part of immigrants and our citizens of foreign birth, have established a foreign land department. It is the intention of the company, by this department, not only to effect the sale of its vast quantity of excellent lands, but also to agitate in Europe and at the East the subject of immigration to Illinois.

Camden and Atlantic Railroad.

The City Council of Camden have passed an ordinance authorizing the Camden and Atlantic Railroad Company to continue a branch road on Mechanic street, from Kaighn's Point, to intersect their main line near the Mount Ephraim road. This is intended as the terminus of the new road, now nearly graded, from Keyport to Jackson station, on the line of the Camden and Atlantic Railroad.

Erie City Coal Market.

The coal which comes to this market is from the Mercer county coal fields. This coal is very plentiful there, and is regarded as the best in the world for producing steam. It is taken from the mines to the canal by short railroads. The Erie and Pittsburg Railroad will run through the heart of this region, thus ensuring us always a plentiful supply of coal at reduced prices. We do not see how this road can fail to become one of the most profitable in the State. If we were a capitalist, we would not hesitate a moment to invest means in it.—*Erie Observer*, May 31.

Wisconsin State Taxes Declared Valid.

The opinions of Chief Justice Dixon and Associate Justice Paine, given this afternoon, reversing their decision of last winter, by which the State taxes for many years past were pronounced invalid, will be found in full in our columns this evening. This places the subject back where the decision of 1855 left it. The court adhered to their former opinion of the present tax law, as an original question, but have receded from their decision of last winter upon grounds of public policy and the principle of *stare decisis*. This will be good news to the whole State, and extricate it from difficulties otherwise irremediable.—*Madison State Journal*, June 2.

Railroad Earnings--Weekly.

The receipts of the Grand Trunk Railway of Canada for the week ending May 31, 1862, were:

14,191 passengers	\$19,648 38
Mails and sundries	2,837 68
12,917 tons of freight and live stock ..	41,004 17

Total	\$63,490 23
Corresponding week, 1861	67,125 20

Decrease

Premium for Raising Sugar in Ohio.

The State Board of Agriculture of Ohio, will award a premium of \$1,000 to the first person who makes 5,000 pounds of good brown sugar, and a specimen of white sugar of not less than twenty pounds in a single uncompressed block, from beets raised on five acres of ground within the State.

Finances of New Hampshire.

The State Treasurer's Report shows the ordinary finances of the State to be in a satisfactory condition. The State debt, above assets on hand, was, on the 1st day of June, 1861, \$31,668 93. The indebtedness has been reduced the past year \$26,005 90, leaving the ordinary debt of the State June 1, 1862, \$5,663 03.

Provincial Postage.

On and after the 1st of June, the postage on all letters directed to the Province of Nova Scotia must be prepaid with United States stamps at the rate of ten cents for a single rate. Letters not thus prepaid will be sent to the Dead Letter Office at Washington.

Hudson River Railroad.

The following gentlemen have been elected directors of this company for the current year:

Samuel Sloan, President, James Boorman, John David Wolfe, Edward Jones, William Kelly, D. Thomas Vail, Erastus Corning, William H. Hays, J. B. Johnston, E. H. Miller, Moses H. Grinnell, John L. Aspinwall, Jacob B. Jewett.

Atlantic and Great Western Railroad.

Work has been commenced on this road near Orangeville, on the line between Trumbull county, Ohio, and Mercer county, Pennsylvania. The West Greenville *Democrat* says work is expected to begin near that place in a few days. There is now every prospect that the enterprise will be rapidly pushed to completion.

Automatic Car Couplings.

Colonel H. T. Romertze has obtained a patent for an automatic car coupling. This invention, we learn, besides being immensely valuable in the matter of saving manual labor, will operate to obviate many of the lamentable "crushing accidents" which receive almost daily record in the newspapers throughout the country. This is one of the latest and doubtless a valuable improvement in alleviation of the many woes of "poor humanity."—*National Intelligencer*.

The Troy Fire--Iron Proof Safes.

An article from the Troy correspondent of the *Scientific American*, which was transferred to the columns of the *RAILROAD JOURNAL*, has unwittingly given cause for offence, on the part of those who are engaged in the manufacture of iron safes in that city. It related to the late conflagration there, and stated, in substance, that hardly a safe unenclosed by brick passed through the fiery ordeal without damage to its contents. It was supposed that this remark conveyed unjust reflections upon Mr. LILLIE, whose safes were extensively used, as well as made, in Troy. Our contemporary, however, puts the matter right by disavowing any such motive, and the Testimonials herewith,

voluntarily offered by nearly fifty persons, will set the matter completely at rest. One of these is signed by fifteen different parties, each of whose safe was exposed from twenty-four to seventy-two hours to the fire, unprotected by water; yet "the money, papers, books, etc., were well preserved, and the safes are suitable for further use."

Mr. LILLIE's safes are manufactured from wrought and chilled iron combined. Noticing this circumstance, the *Troy Times* observes: "This compound is not warped or displaced by heat, however powerful or long continued it may be; at least, such was the experience in the fire of May 10th. Wrought iron alone in the fire was bent and warped to a considerable extent; but when compounded with chilled iron no test was powerful enough to make an impression." It further observes: "We saw several of Mr. LILLIE's safes opened, some of them after they had been in the fire at least thirty hours, and all of them preserved their contents from destruction; though not in a perfect state. Papers were blackened and charred; but in every instance they were available for copying. From one safe we saw \$2,000 in paper money taken out in good condition." It further adds that, "Mr. LILLIE's safes not only stood the test well, but in all cases where water was poured upon them to cool them, they came out triumphantly, and proved their superiority beyond all question."

THE GREAT FIRE IN TROY.

Unparalleled Triumph OF LILLIE'S SAFES!

The following certificates explain themselves:

TROY CITY BANK, May 21, 1862.
LEWIS LILLIE, Esq.—Dear Sir: I am sure it will give you as much pleasure to know as it does me to say, that in the recent fire of the 10th inst., which desolated our city and destroyed our Banking-house, the contents of our Bank vault, though the building itself was a heap of ruins, remained entirely unharmed. This result we attribute entirely to the fact that our old Wrought Iron Doors were, about two years since, exchanged for a set of your celebrated Chilled and Wrought Iron Doors and Frames. With the old doors, not a book or paper in the Vault could have been saved; as it is, nothing in it was even damaged, though exposed to the most intense heat.
Yours, respectfully,
S. K. STOW, Cashier.

TROY, N. Y., May 14, 1862.
The undersigned, using Lillie's Chilled and Wrought Iron Fire and Burglar Proof Safes, at the time of the late disastrous fire in this city, would state that our safes were subjected to a severe test by fire, the heat varying in intensity, according to the locality and surroundings. The time they were exposed to the fiery ordeal, unprotected by water, varied from 24 to 72 hours. We would say that our money, papers, books, etc. were well preserved, and the Safes are suitable for further use. By comparison with Safes of other manufacture, equally exposed, we have no hesitancy in recommending Safes of Lillie's manufacture to the public on their demonstrated merit as entitled to unparalleled confidence as fire-proofs.

James Kenyon,	S. Bachelder,
S. O. Gleason,	Gates H. Barnard,
Percy & King,	W. D. Haight,
McCoy & Beadle,	Denio & Freiot,
Coon & Van Valkenburgh,	Walsh, Pettit & Anthony,
S. S. McClure,	J. H. Snyder,
Ross & Smith,	Jonathan Seaman.
Robert Green,	

Not dug out—nothing in them.

TROY, May 19, 1862.
The undersigned had one of Lillie's Wrought and Chilled Iron Safes, which went through the fire of the 10th of May. The Safe was exposed to a severe fire for over 24 hours. In falling it turned on its face, and when turned up to open the doors was red-hot. The back of the lower part of the Safe (behind the books) was filled with pennies, which, in falling over, pressed against the books, and brought them directly in contact with the doors. The wrappers on the pennies were mostly good. The books were unfit for further use, but the writing on them was partially legible, and could be copied.

DUSENBURY & ANTHONY.

CARS

FOR

TWO HORSES

COMBINING

ALL

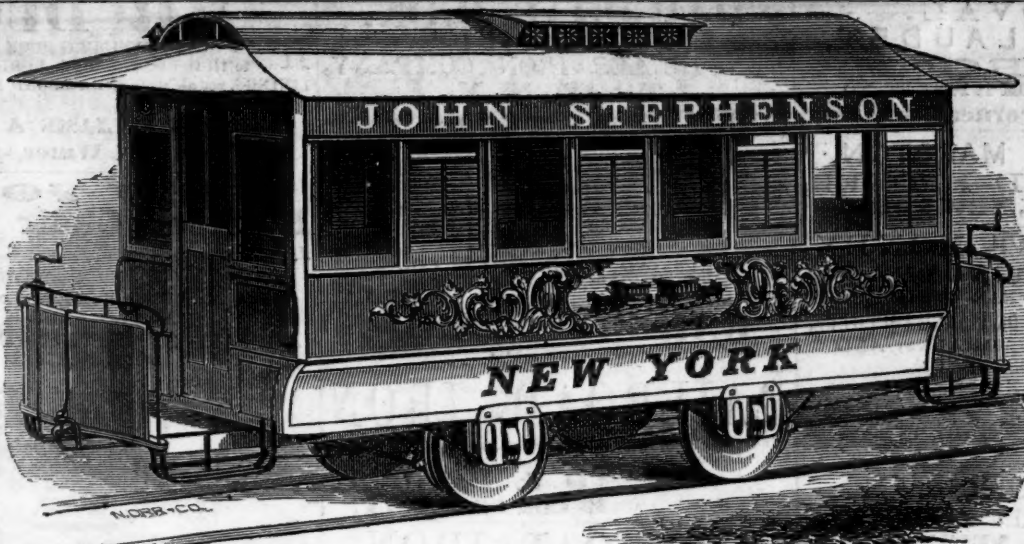
Valuable Inventions,

**ELEGANT
STYLE.**

Light & Durable,

Full Size

AND

**REDUCED
WEIGHT****47 EAST 27TH STREET.**

This Establishment commenced building **STREET CARS** in 1832, and is famed for superior **ELEGANCE** of workmanship and **SUBSTANTIAL** practical results.

Its location, in the **PORT** of **NEW YORK**, is most favorable for shipments, and its **CARS**, **CONSTRUCTED** in **SECTIONS**, may be **ENTIRELY COMPLETED** before being packed for transportation.

PASCAL IRON WORKS,

ESTABLISHED 1821.

MORRIS, TASKER & CO.,

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ¼ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water or other purposes; also, fittings of every kind to suit the same.

Wrought Iron Galvanized Tube—strong and durable, designed especially for water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, etc.

Gas Works Castings, etc., etc.

PHILADELPHIA.**Manhattan Oil Company,**

Office, No. 16 Broadway, NEW YORK.

JAMES M. MOTLEY, Vice Pres't and Treasurer.

MANUFACTURERS OF

MASON'S SPERM OIL,

AND DEALERS IN

SPERM, WHALE, LARD AND OTHER OILS,

For Railroads, Steamers, Machinery and Burning.

DELAFIELD & BAXTER'S,

Late OGDEN & DELAFIELD,

ROSENDALE CEMENT.

WE are prepared to enter into arrangements for supplying our CEMENT for public works, or other purposes. We warrant it equal in every respect to any manufactured in this country. It attains a great degree of hardness, sets immediately under water, and is a superior article for masonry coming in contact with water, or requiring great strength. For sale in tight barrels, well papered, on application at their office, by **DELAFIELD & BAXTER, 104 Wall st.** The above CEMENT is used in most of the fortifications building by government.

P. W. HOLMES,
STOCK AND BOND COMMISSION BROKER,
No. 51 EXCHANGE PLACE,
NEW YORK.

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DUNCAN, SHERMAN & Co., New York.
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AMERICAN EXPRESS Co., New York.
Hon. ERASTUS CORNING, Albany, N. Y.
Hon. C. VIBBARD, Albany, N. Y.
INTERNATIONAL BANK, Buffalo, N. Y.

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BANKERS and BROKERS,
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BOUGHT AND SOLD ON COMMISSION.
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STOCKS and BONDS bought and sold at private sale
Sale every day at 1 o'clock. See Catalogue.

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GOLD, TREASURY NOTES
And all first-class SECURITIES
BOUGHT AND SOLD.

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BUYS AND SELLS STOCKS, BONDS AND
Public Securities of every kind, on Commission.
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Geo. A. Cox, Esq., President of the American Exchange
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ROBERT BAYARD, Esq., 19 Wall st., New York.
S. J. TILDEN, Esq., 12 Wall st., New York.

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INTEREST ALLOWED ON DEPOSITS.
EUGENE THOMSON. C. MILTON BUTTER.

DUNCAN, SHERMAN & CO.,
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CIRCULAR NOTES AND LETTERS OF CREDIT,
FOR TRAVELERS,
AVAILABLE IN ALL THE PRINCIPAL CITIES OF THE WORLD.
ALSO, MERCANTILE CREDITS,
For use in EUROPE, CHINA, etc.

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 HAS REMOVED FROM 11 PINE ST., TO
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BANKER AND BROKER,
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 QUARTERMASTERS' AND ORDNANCE VOUCHERS,
 SPECIE, LAND WARRANTS, AND
 DOMESTIC EXCHANGE,
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STOCKS, BONDS and GOLD bought and sold on Commission at the Board of Brokers.
LOANS negotiated and Advances made on marketable Securities.

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BANKER AND BROKER,
No. 4 Broad st., NEW YORK.

GOVERNMENT CLAIMS, BONDS, QUARTERMASTERS' VOUCHERS and U. S. 6 PER CENT. CERTIFICATES,
Fire and Marine Insurance Stock and Scrip
BOUGHT, SOLD and ADVANCED UPON.
 MERCANTILE PAPER AND LOANS NEGOTIATED.
INTEREST ALLOWED ON DEPOSITS.

H. MEIGS, Jr. & SMITH,
BANKERS AND BROKERS,
 39 WILLIAM STREET,
 (FIRST BUILDING BELOW WALL STREET.)
 STOCKS and BONDS Bought and Sold on Commission
 MERCANTILE PAPER and LOANS Negotiated.
INTEREST ALLOWED ON DEPOSITS.
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SAMUEL HALLETT & CO.,
BANKERS,
 58 BEAVER STREET,
 NEW YORK CITY.

DEALERS IN
Foreign and Domestic Exchange,
 AND NEGOTIATORS OF
STATE AND RAILROAD BONDS.

REMOVAL AND CHANGE OF NAME.
 THE business heretofore conducted by A. BRIDGES & Co., at 64 Courtlandt st., will be continued by the same parties hereafter under the firm of—
BRIDGES & LANE,
 at 50 Courtlandt, corner of Greenwich st.
 New York, March 31, 1862.
 See Advertisement. { **ALBERT BRIDGES.**
JOEL C. LANE.

CHAS. A. MEIGS & SON,
BANKERS AND BROKERS,
No. 50 EXCHANGE PLACE, N. Y.
STOCKS AND BONDS
BOUGHT AND SOLD ON COMMISSION.

Babbitt Metal! Babbitt Metal!
BEST and CHEAPEST in the WORLD!!!—"That's modest!"—says Mr. McGrowler. Well, it is true also, and if the Railroad Committees on supplies will call on me, they will find it so.

BLOCK TIN, ANTIMONY and LEAD for the use of Railroads also sold at the lowest rates by

LUCIUS HART,
Nos. 4 and 6 Burling Slip,
NEW YORK.

RAILROAD IRON.
 THE
RENSSELAER IRON COMPANY,
TROY, N. Y.,

OFFER RAILS of their own manufacture deliverable as may be desired by purchasers.

OLD RAILS
 received in exchange for new, or for re-manufacturing.
JOHN A. GRISWOLD, Agent,
TROY, N. Y.

New York Agency:
BUSSING, CROCKER & CO.,
 32 Cliff st.

RAILROAD IRON.
 THE UNDERSIGNED are prepared to contract for the sale of

RAILROAD IRON
 on advantageous terms, delivered at ports of England, Wales, or the United States.

MEAD & BELL,
 13 Cliff Street, N. Y.

RAILROAD IRON.
 ENGLISH and AMERICAN Railroad Iron for delivery in New York and other markets in the United States and England. Contracts negotiated by
E. A. & S. W. HOPKINS,
 70 Beaver st., New York.

RAILROAD IRON.
 2,000 TONS Railroad Iron, New York and Erie pattern, "Crawshaw's" make,—50, 56 and 58 pounds per lineal yard, afloat, or in yard at Brooklyn, ready for immediate delivery; for sale by
FIRM, THEODORE DEHON,
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RAILROAD IRON.
 THE undersigned, agents for the manufacturers, are prepared to make **CONTRACTS FOR RAILS** delivered free on board at ports in England, or exship at ports in the United States
M. K. JESUP & COM'Y,
 44 Exchange Place.
 New York, 1st June, 1859.

RAILROAD IRON.
 3,400 TONS BEST QUALITY WELSH RAILS—T pattern—53 lbs. per lineal yard, for sale by
CHAS. L. PERKINS, or
E. LIVINGSTON,
 54 Exchange Place.

RAILROAD IRON.
 THE subscriber is prepared to enter into **Contracts for RAILS** delivered at an English port or at a port in the United States.
JAMES TINKER,
 54 Exchange Place, NEW YORK.
 Erie Rails, 57 to 58 lbs. per yard, on hand in NEW YORK and NEW ORLEANS.

MORRIS, WHEELER & CO.,
 SUCCESSORS TO
MORRIS & JONES & CO.,
IRON MERCHANTS,
 MARKET AND SIXTEENTH STREETS,
 PHILADELPHIA.

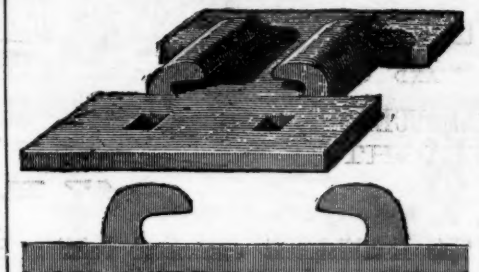
IRON AND STEEL
 IN ALL THEIR VARIETIES.
 ROILER PLATE, CAR AXLES,
 BOILER RIVETS, RAILROAD IRON,
 CUT NAILS and SPIKES, PIG IRON, etc.
 Having the selling agency of a number of the Rolling Mills, Furnaces and Forges in this State, orders for any description of IRON can be executed.

RAILROAD IRON
AND COMMON BARS.
 THE undersigned, sole Agents to Messrs. GUNST & Co., the proprietors of the Dowlais Iron Works, near Cardiff, South Wales, are duly authorized to contract for the sale of their G. L. Railroad Iron, and Common Bars, on most advantageous terms.
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CAR DUCK.
 HEAVY 4-PLY FITCHBURG DUCK OF ALL WIDTHS, up to 140 inches, PLUSHES, BURLAPS, CAR HEAD LININGS, and all kinds of RAILROAD SUPPLIES.
 For sale by

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 67 Water st., Boston

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JOSIAH S. LEVERETT & CO.,
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THIS Company also manufacture RAILROAD, SHIP AND BOAT SPIKES of a superior quality, which they are prepared to supply at the shortest notice.

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SUPERIOR WROUGHT IRON RAILWAY CHAIRS,
 With continuous lips, made to fit exactly the flanges of the rails.
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BRANCH OFFICE, No. 126 Maiden Lane, NEW YORK.
MARCUS A. FINCH, Agent.

MANUFACTURERS of Paraffine Lubricating Oil for Railroad Cars, Locomotive Engines, and Stationary Machinery of all kinds, including Cotton Spindles, Woollen Machinery, etc., etc.

TRIAL of PARAFFINE LUBRICATING OIL.
 By W. B. LEONARD, Esq., Sec'y of the American Institute.

ON HIS PATENT DYNAMOMETER FOR TESTING OILS.

Revolutions.	Pure Sperm Oil, Power Exhausted.	Paraffine Oil, Power Exhausted.	In favor of Paraffine.
500	2	1	100 percent.
1,000	4	2	100 "
1,500	6 1/2	3 1/2	90 "
2,000	Practical point of Oiling	5	90 "
2,500	13	7	85 "
3,000	Sperm entirely exhausted, 17 1/2	10	75 "
3,500	Paraffine entirely exhausted	14	500 more revolutions, and 25 per cent. less power exhausted than the sperm.

CERTIFICATE.
 OFFICE No. 1 SPRUCE ST., NEW YORK.
 I hereby certify that the above is a true copy of a trial of Paraffine Oil, manufactured by the Union Coal and Oil Company, of Maysville, Ky., as tried on my Patent Dynamometer, on the 30th day of September, 1858, showing that said Paraffine Oil contains 75 per cent. more lubricating properties than pure Summer Strained Sperm Oil. [Signed.] W. B. LEONARD.

P. S.—All Oils warranted for the purposes for which they are recommended.

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 Law Reporter for the "AMERICAN RAILROAD JOURNAL,"
 No. 8 WALL STREET, NEW YORK.
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COL. LONG'S PATENT IRON RAILWAY BRIDGE.



THE plan of this Bridge is upon the principle of the **SUSPENSION TRUSS**; and the Iron is so arranged in its construction as to impart its greatest longitudinal strength to the whole work.

The subscribers are prepared to furnish large quantities of **IRON BRIDGING**, for Railroad or other purposes, at short notice, and at moderate prices.

M. M. WHITE & CO., Proprietors,
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Wm. J. Young

HAS removed his Engineering and Surveying Instrument Manufactory to No. 43 North Seventh Street, Philadelphia



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MATHEMATICAL Instrument Maker, at the old stand,
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Mining Eng'r and Surveyor, Eagle River, Lake Superior.

Ellwood Morris,

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Osborne, Richard B.,

Civil Engineer, Office 227 South 4th st., Philadelphia.

W. Milnor Roberts,

Civil Engineer, Carlisle, Pa.

Shanly, Walter,

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Rolled or Hammered Car Axles, Bar Iron
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FURNISH

CHILLED WHEELS,
FOR CARS, TRUCKS, and TENDERS.

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ROLLED AND HAMMERED AXLES.
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MANUFACTURERS OF

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TIRES,
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ARE PREPARED TO EXECUTE PROMPTLY
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EITHER SINGLE OR DOUBLE PLATE,
WITH OR WITHOUT AXLES.

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To HAMMERED or ROLLED AXLES.

IN THE BEST MANNER, AT THE SHORTEST NOTICE,
AND ON THE MOST REASONABLE TERMS.

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RICHARD NORRIS & SON,
LOCOMOTIVE STEAM ENGINE
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SEVENTEENTH STREET, ABOVE CALLOWHILL,
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ENGAGED EXCLUSIVELY IN THE MANUFACTURE OF
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MANUFACTURE to order, Locomotives of any Arrangement, Weight or Capacity. In Design, Material and Workmanship, the Locomotives produced at these Works, are equal to and cannot be excelled by any.

THE ROGERS
Locomotive & Machine
WORKS,

SUCCESSORS TO
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Also, Stationary Engines, and the various Tools suitable for furnishing Repair Shops.
The business of Machine making, heretofore carried on by Charles Danforth & Co., is continued by the present firm, and all orders will receive prompt attention.

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TAUNTON LOCOMOTIVE
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HAVING large facilities, and having had a long experience in the business, are prepared to furnish

LOCOMOTIVES,
EITHER FOR BURNING WOOD OR COAL,
OF THE MOST APPROVED CONSTRUCTION.

ALSO ALL KINDS OF
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ORDERS received for all sizes MERCHANT BAR and RAILROAD IRON, AMERICAN and SCOTCH FIG IRON, SUPERIOR WROUGHT IRON RAILROAD CHAIRS, SPIKES, CAR WHEELS, NAILS, ETC., ETC.
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Corner Beaver st., opposite the Bowling Green. NEW YORK.

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Messrs. Wm. Oothout & Bro., Peter Cooper, Esq.,
Messrs. Marshall Lefferts & Bro., James L. Jackson, Esq.

